

Electrical and Computer Engineering

Degrees Offered

MS, MS/PhD, PhD

About the Program

The Department of Electrical and Computer Engineering (ECE) is a broad field encompassing such diverse areas as computers and digital systems, control, communications, electronics, signal processing, electromagnetics, electro-optics, physics of electronic devices, and device fabrication. As in most areas of engineering, in ECE, knowledge of mathematics and the natural sciences is combined with engineering fundamentals and applied to the theory, design, analysis, and implementation of devices and systems for the benefit of society.

The department is known for its high-impact interdisciplinary research and collaboration — many revolutionary innovations have been developed by ECE research, and our faculty continue to pioneer new technical frontiers.

Research Specializations

- Communication and Signal Processing
- Computer Engineering
- Control Systems
- Electronics and Photonics

By the Numbers

#7 ECE program at a U.S. public institution (2024)

#15 Public graduate program, U.S. News and World Report (2025)

45 Faculty Members

Among our current faculty, research professors, and emeriti:

2 Nobel Laureates

15 National Academy of Engineering (NAE) members

5 National Academy of Science (NAS) members

43 Institute of Electrical and Electronics Engineers (IEEE) Fellows

25 National Science Foundation (NSF) Early CAREER recipients

3 Presidential Early Career Award for Scientists and Engineers (PECASE) recipients

\$19.1M in Annual Research Funding (2021-'24)

316 MS and PhD Students (Fall 2024)

7:1 PhD Student to Faculty Ratio (Fall 2024)

39 MS Degrees Awarded (2023-'24)

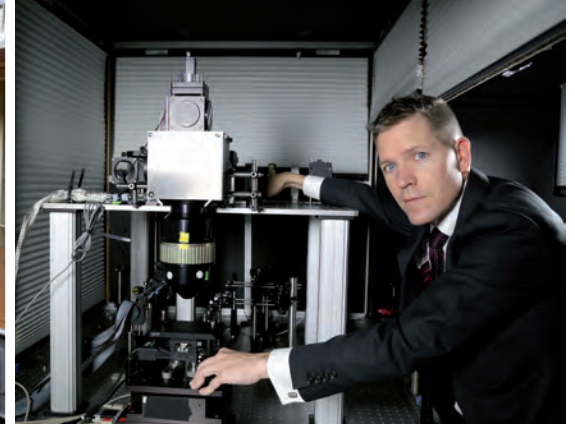
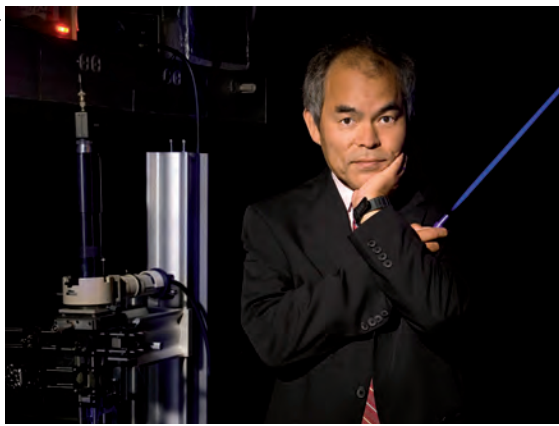
32 PhD Degrees Awarded (2023-'24)



UC SANTA BARBARA
College of Engineering

www.ece.ucsb.edu/grad/apply

grad-apply@ece.ucsb.edu



Requirements

- Online application: <https://www.graddiv.ucsb.edu/eapp>
- ECE Graduate Studies Application Information page: <https://www.ece.ucsb.edu/grad/apply>
- ECE Graduate Studies Frequently Asked Questions page: <https://web.ece.ucsb.edu/academics/grad/resources/ms-resources/faq>
- Statement of Purpose, Personal History and Diversity Statement (minimum word count of 250 words), and brief resume or CV of your academic career (submitted in the online application).
- Three letters of recommendation (submitted online).
- Official transcripts from all post-secondary institutions attended (submitted online).
- English Language Exam Scores (if applicable): TOEFL Internet-Based Test (IST) total score of 80, or TOEFL PaperBased Test (PBT) total score of 550, or IELTS Overall Band score of 7, or Duolingo English Test total score of 120, or higher.
- Note: DO NOT include papers, technical reports, or copies of bachelor or master's theses, as these will be discarded. A mention of their existence in your resume or CV is sufficient
- All required application materials must be received by the corresponding admission deadline in order for the application to be considered complete, and evaluated.
- Final/Official transcripts will be required for all applicants who are admitted and have indicated their intent to enroll at UC Santa Barbara by submitting a Statement of Intent to Register (SIR).

Testimonials



Jenny Zeng
(PhD '24)

“ I chose UCSB because the College of Engineering is among the best in the nation, and ECE professors pursue world-leading research and greatly encourage graduate student internships in their labs. The department also offers very innovative and diverse research fields for graduate students, and the academic advisors are very responsive and helpful.”



Elaheh Ahmadi
(PhD '15)
*Associate Professor of
Electrical and Computer
Engineering, UCLA*

“ I had an amazing experience at UCSB working with some of the most distinguished professors in the field of semiconductors. The unique collaborative atmosphere at UCSB helped me to grow both professionally and personally. Moreover, the world-class facilities at UCSB provided me with all the critical tools needed to succeed in my research. Last but not least, the support and mentorship of my PhD and postdoc advisors greatly helped me to prepare for an academic career.”

Interdisciplinary Centers and Programs

- UCSB Nanofabrication Facility
- American Institute for Manufacturing of Photonics (AIM)
- AI Institute for Agent-Based Cyber Threat and Operation (ACTION)
- California Nanosystems Institute (CNSI)
- Institute for Energy Efficiency (IEE)
- Center for Bio-Image Informatics (CBI)
- Center for Converged TeraHertz Communications & Sensing (ComSenTer)
- Center for Control Dynamical Systems, and Computation (CCDC)
- Center for Multimodal Big Data Science and Healthcare
- Center for Responsible Machine Learning (CRML)
- Materials Research Laboratory (MRL)
- Neuroscience Research Institute (NRI)
- Optoelectronics Technology Center (OTC)
- Solid-State Lighting and Energy Electronics Center (SLEEC)
- Terabit Optical Ethernet Center (TOEC)
- UCSB Quantum Foundry (UQF)

Deadlines

- **Fall:** December 16, 2024 (by 11:59 PM PST) - Financial support and admission consideration (MS, MS/PhD, PhD)
- **Winter:** November 1, 2024 (by 11:59 PM PST) - Admission only (PhD)
- **Spring:** January 2, 2025 (by 11:59 PM PST) - Admission only (PhD)

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